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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/929,210

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Timothy Y. Chow

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EXAMINER

SAM, PHIRIN

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 04/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/929,210

Applicant(s)

CHOW ET AL.

Examiner

Phirin Sam

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-28 is/are allowed.
- 6) ☒ Claim(s) 1,2,6,7,10,13 and 14 is/are rejected.
- 7) ☒ Claim(s) 3-5,8,9,11 and 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**PHIRIN SAM****PRIMARY EXAMINER****Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5/2/02 and 2/10/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
3. Claims 1, 2, 6, 7, 10, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pub. 2003/0021222 hereinafter referred as "Boer" in view of US Pub. 2002/0012318 hereinafter referred as "Moriya".

Boer discloses the invention (**claim 1**) as claimed including in communication system comprising a first network including a source (see Figs. 7B and 8, elements 100 and 70) arranged to transmit data and a second network including a destination (see Figs. 7B and 8, elements 102 and 72) arranged receive the data, at least one of the first network and the second network being a mesh network (see abstract and page 1, lines [0009]), apparatus for reducing interruptions in communication between the source and destination comprising:

Art Unit: 2661

- (a) a first primary node in the first network (see Fig. 7B, element NE D);
- (b) a first secondary node in the first network (see Fig. 7B, element NE E);
- (c) a second primary node in the second network (see Fig. 7B, element NE I);
- (d) a second secondary node in the second network (see Fig. 7B, element NE F);
- (e) a first set of primary routes within the first network (see Fig. 7B, element W, wherein the W (primary routes) path between NE A and NE D) arranged to facilitate delivery of a first set of the data to the first primary node (see Fig. 7B, element NE D (first primary node), wherein the data from terminal 70 is transported to NE D through W (primary routes)) and a second set of the data to first secondary node (see Fig. 7B, element NE E, wherein if the W path is failed, the data is transported from terminal 70 and NE A to NE E (first secondary node));
- (f) inter-network routes between the first and second networks (see Fig. 7B, element NE G);
- (g) a second set of primary routes within the second network arranged to facilitate delivery of data to the destination node (see Fig. 7B, elements W, the connection between NE I and NE H is connected by W path);
- (i) first secondary route within the first network between the source and the first secondary node (see Fig. 7B, elements 100, NE A, P, NE E, wherein P (first secondary route) is connected between source 70 and NE E (first secondary node));
- (j) first route selector arranged to select the first secondary route in the event that a primary route within the first set of primary routes is disabled (see Fig. 7B, element NE A, if W path is failed, NE A will select P path for communication or transport the data);

Art Unit: 2661

- (k) second secondary route within the second network between the second secondary node and the destination (see Figs. 7B and 72, elements P and 72, wherein P path within 102 connected between NE F (secondary node) and terminal 72 (destination)); and
- (l) second route selector arranged to select the second secondary route within the second set of in the event that a primary route primary routes is disabled (see Fig. 7B, element NE G, when the connection between NE I and NE H is failed, NE G (second router selector within this node) will select P path for transport data to the terminal 72 (destination)).

Boer does not disclose the first and second sets of data to the destination node. However, Moriya disclose the first and second sets of data to the destination node (see Fig. 12, page 12, lines [0177]). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the first and second sets of data transport to the destination node teaching by Moriya with Boer. The motivation for doing so would have been to provide to reduce the heaviness with respect to the original communication traffic read on page 12, lines [0178]. Therefore, it would have been obvious to combine Moriya and Boer to obtain the invention as specified in the claim 1.

**Regarding claim 2**, Boer discloses the first network comprises a mesh network and the second network comprises a mesh network (see page 1, lines [0007] and [0008]).

**Regarding claim 6**, Boer discloses the selector is located in the second primary node (see Figs. 3-4, where any node has a switch or selector).

**Regarding claim 7**, Boer discloses all the limitations. On the other hand, Boer does not disclose the second set of the data normally generated by the first primary node. However, Moriya discloses the second set of the data normally generated by the first primary node (see

Art Unit: 2661

Fig. 12, page 12, lines [0177]). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the second set of the data normally generated by the first primary node teaching by Moriya with Boer. The motivation for doing so would have been to provide to reduce the heaviness during communication traffic read on page 12, line [0178]. Therefore, it would have been obvious to combine Moriya and Boer to obtain the invention as specified in the claim 7.

**Regarding claim 10**, Boer discloses wherein the first set of primary routes (see Fig. 7B, element W) comprises a first primary route linking the source with the first primary node (see Figs. 7B and 8, elements 70, W, and NE D) and a second primary route linking the source with the first secondary node (see Figs. 7B and 8, elements 70, P, and NE E).

**Regarding claim 13**, Boer discloses the selector is located in the destination (see Fig. 3, page 3, lines [0034]).

**Regarding claim 14**, Boer discloses all the limitations. On the other hand, Boer does not disclose second set of the data is generated by the source. However, Moriya discloses the second set of the data is generated by the source (see Fig. 12, page 12, lines [0177]). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the second set of the data generated by the source teaching by Moriya with Boer. The motivation for doing so would have been to provide to reduce the heaviness with respect to the original communication traffic read on page 12, lines [0178]. Therefore, it would have been obvious to combine Moriya and Boer to obtain the invention as specified in the claim 14.

***Allowable Subject Matter***

4. Claims 15-28 are allowed.

Art Unit: 2661

5. Claims 3, 4, 5, 8, 9, 11, and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(1) Nakata (U.S. Patent 6,829,216) discloses method and system for designing a network.

(2) Mark et al (U.S. Pub. 2002/0167900) discloses packet network providing fast distribution of node related information and a method therefor.

(3) Eslambolchi (U.S. Patent 6,370,110) discloses back-up restoration technique for sonnet/shd rings.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phirin Sam whose telephone number is (571) 272-3082. The examiner can normally be reached on Mon-Fri, 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T Nguyen can be reached on (571) 272 - 3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2661

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully submitted,

Date: March 31, 2005

A handwritten signature in black ink, appearing to read 'Phirin Sam', written over a horizontal line.

**PHIRIN SAM  
PRIMARY EXAMINER**